REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated December 22, 2007. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

Claims 3-4 and 7-8 are under consideration in this application. Claims 1-2 and 5-6 are being cancelled without prejudice or disclaimer. Claims 3-4 and 7-8 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim applicant's invention.

All the amendments to the claims are supported by the specification. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formality Rejection

Claims 5-8 were objected to for informalities. As indicated, the claims are being cancelled without prejudice or disclaimer or amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

Prior Art Rejection

Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over WO 02/33571 A2 of David et al. (hereinafter "David") in view of US 2004/0059755 of Farrington (hereinafter "Farrington"). This rejection has been carefully considered, but is most respectfully traversed, as more fully discussed below.

A method of outputting a database search information in a database system for retrieving records (e.g., "record content" 402: "In a database system having the function of extracting records ....." in Fig. 5) using a search key (e.g., a "search key" 401: C0004 in Fig. 5) and retrieving records from a plurality of databases in a chain-reactive manner, the method of claim 3 comprises: a step of retrieving a record (e.g., a row in Fig. 2) by entering an initial/1st search key (e.g., "G0001") into an initial/1st database *("initiation of search"* p. 6,

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line 7; Step 502 in Fig. *6);* a step of retrieving a subsequent/2nd record by entering a subsequent/2nd search key (e.g., "H0002"), which is contained in the retrieved record and different from the initial/1st search key, into a subsequent/2nd database different from the initial/1st database *in a chain-reactive manner* from the initial/1st database via a plurality of sequent databases to provide subsequently retrieved records as search results (p. 3, 4th paragraph; p. 6, 2nd paragraph); a step of outputting, in the case that a first subsequent record retrieved from a first subsequent database on a chain-reactive search path *does not contain a subsequent search key* to be entered into a second subsequent database that is subsequently searched, information for identifying a first subsequent record that does not contain the subsequent search key and information for identifying the first subsequent database having the first subsequent record (steps 503-504 in Fig. *6; "when the record retrieving fails, the failure is detected in step 503 and the routine advances to step 504..."* p.6, last two paragraphs). In particular, in the step of retrieving subsequent records in a chain-reactive manner, information for identifying a group of search keys and a group of records retrieved through a series of retrieval processes in accordance with the search path is displayed in a **matrix** form using the databases and a group of the first search keys as indexes.

The invention recited in claim 7 is directed to a program for causing a computer to carry out the method of outputting database search information in a database system for retrieving records using a search key and retrieving records from a plurality of databases in a chain-reactive manner, as recited in claim 3. In particular, in the module for retrieving subsequent records in a chain-reactive manner, information for identifying a group of search keys and a group of records retrieved through a series of retrieval processes in accordance with the search path is displayed in a **matrix** form using the databases and a group of the first search keys as indexes.

As such, a user can recognize that a number of records cannot be retrieved from the terminal database, the user can easily and visually recognize any intervening database having a record that does not contain a search key for the subsequent database, and the user can assume the reason why the search key is not contained by directly referring to the record (p. 8, last 4 paragraphs).

First of all, Applicants respectfully contend that none of the cited prior art references teaches or suggests such a step/module for "outputting, in the case that a first subsequent record retrieved from a first subsequent database on a chain-reactive search path does not contain a subsequent search key to be entered into a second subsequent database that is

subsequently searched, information for identifying a first subsequent record that does not contain the subsequent search key and information for identifying the first subsequent database having the first subsequent record", according to the invention.

As admitted by the Examiner (p. 3, last paragraph of the outstanding Office Action), David does not teach such an outputting step. Farrington was relied upon by the Examiner to provide such a teaching. However, Farrington's segments and fields are limited to a hierarchical relationship (Abstract) such that the fields under the child segments at the same level are mutually exclusive (i.e., to constitute a "valid path") and therefore disabled (as constituting an "invalid path") ([0044]). For example, the following segments 121 have been selected and are child segments 116 of the root segment 212: bkl-**Name** 214, bkl-**City** 216, bkl-**State** 218, and bkl-**Country** 220. ... when the user selects a field 118 under one child segment 116 the fields under the other child segments 116 at the same level are mutually exclusive (i.e., to constitute a "valid path") and therefore disabled (as constituting an "invalid path") ([0043]-[0044]). *"The user is prevented from selecting segments and fields that are not valid for the selected path thereby ensuring accuracy in the representation of the database data structure* (abstract)."

In contrast, Farrington only retrieves database descriptions (which define database characteristics, such as a database record structure (Name, City, Sate, Country, etc.), and relationships between segments (e.g., parts of addresses) in a database record ([0012]; [0016]), rather than database data ("record content" 402 in Fig. 5) themselves as the preset invention.

Farrington parses the PSBs, DBDs, and programming language data structures and displays the overlapping data structures represented in a hierarchical tree view of available segments and fields ([0010], lines 9-12). Had Farrington accessed a database, some sort of parts to be provided with actual data values for the key fields of the sought after record should be shown on the screens in the drawings of the disclosure.

In addition, Farrington only enables users to select segments and fields that are associated with a valid path in the hierarchical tree view and to view invalid paths ([0010], lines 13-20). Such valid or invalid paths are invalid data structure paths, rather than any records of data linked via *search keys* as in the present invention. Farrington's invalid paths include mutually exclusive child segments at the same level, which is essentially different from "a first subsequent record retrieved from a first subsequent database on a chain-reactive search path which does not contain a subsequent search key to be entered into a second

subsequent database that is subsequently searched" as recited in claim 1. A valid path 113 in Farrington's hierarchical tree structure 134 ([0044]) has nothing to do with any "first subsequent record retrieved from a first subsequent database on a chain-reactive search path which contains a subsequent search key to be entered into a second subsequent database that is subsequently searched" of the present invention. Farrington simply does not use search keys to trigger a chain reaction, as does the present invention.

Contrary to the Examiner's assertion, Farrington does not teach or suggest such a step/module for "outputting, in the case that a first subsequent record retrieved from a first subsequent database on a chain-reactive search path does not contain a subsequent search key to be entered into a second subsequent database that is subsequently searched, information for identifying a first subsequent record that does not contain the subsequent search key and information for identifying the first subsequent database having the first subsequent record," according to the invention.

Applicants respectfully contend that one skilled in the art would not be motivated to look into Farrington's segments/fields selecting scheme for data structural organizing teachings to improve David's plural-database searching system. Since David only concerns linking database data themselves, rather than the database segments (Name, City, Sate, Country, etc.) in a database record as in Farrington. Since David is not interested in "selecting segments and fields of a hierarchical database or data files and for identifying mutual exclusivity between the segments and filed (p. 4, 3rd paragraph pf the outstanding Office action)," Applicants respectfully contend that the alleged motivation to combine is improper.

In addition, the Examiner fails to establish a prima facie case of obviousness by properly bridging the proposed modification of the references necessary to arrive at the claimed subject matter. MPEP 706.02(j). There are numerous ways to combine Farrington's segments/fields selecting scheme with David's plural-database searching system. The most intuitive combination would be to simply merge them as they are, rather than selecting bits and pieces from each reference, and then combining those bits and pieces using knowledge or hindsight gleaned from the disclosure of the present invention as a guide to support the combination. The well established rule of law is that each prior art reference must be evaluated as an entirety, and that all of the prior art must be considered as a whole," *Panduit Corp. v. Dennison Mfg. Co.*, 227 USPQ 337, 344 (Fed. Cir. 1985). See *Para-Ordinance Mfg, Inc. v. SGS Importers Intl.*, Inc., 73 F.3d 1085, 37 USPQ2d 1237 (Fed. Cir. 1995)

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("Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor.").

Even if, arguendo, one skilled in the art were motivated to combine the teachings in Farrington and David as suggested by the Examiner, such combined teachings would still fall short in fully meeting the Applicants' claimed invention as set forth in claims 1 and 5 since, as discussed, there is no teaching of "such a step/module for "outputting, in the case that a first subsequent record retrieved from a first subsequent database on a chain-reactive search path does not contain a subsequent search key to be entered into a second subsequent database that is subsequently searched, information for identifying a first subsequent record that does not contain the subsequent search key and information for identifying the first subsequent database having the first subsequent record" in either Farrington and David.

Secondly, Applicants respectfully contend that none of the cited prior art references teaches or suggests that "in the step of retrieving subsequent records in a chain-reactive manner, *information for identifying a group of search keys and a group of records retrieved through a series of retrieval processes in accordance with the search path is displayed in a matrix form* (e.g., including a rectangular array of search keys, Fig. 4; p. 7, 4th paragraph) *using the databases and a group of the first search keys as indexes*", according to the invention.

Neither Farrington nor David teaches or shows such a "matrix" including a rectangular array of search keys (Fig. 4; p. 7, 4th paragraph). Neither Farrington nor David teaches or shows such a display of the chain-reactive search path by linking the initial database with the sequent databases (Fig. 3; p. 5, 4th paragraph). In contrast, David shows each database in a separate diagram (Figs. 1-4 respectively). As mentioned, Farrington simply does not use search keys to trigger a chain reaction, as does the present invention.

Although the invention applies the general representation of a "matrix", the invention uses the matrix to show "information for identifying a group of search keys and a group of records retrieved through a series of retrieval processes in accordance with the search path using the databases and a group of the first search keys as indexes" to achieve unexpected results or properties. For example, information displayed in a matrix form as shown in Fig. 4 such that the absence of records based on a particular search key during search can be easily seen. As another example, the user can recognize that a sufficient number of records cannot be retrieved when records do not contain search keys for subsequent databases in the course of retrieving search keys and records in a chain-reactive manner up to the terminal database

with respect to the entered search key (p. 8, 3rd full paragraph). As a third example, when an intervening database has a record that does not contain a search key for the subsequent database, the user can visually recognize the record and assume the reason why the search key is not contained by directly referring to the record (p. 8, 4th &5th full paragraphs). The presence of these unexpected properties is evidence of nonobviousness. MPEP§716.02(a).

> *"Presence of a property not possessed by the prior art is evidence of nonobviousness. In re Papesch, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) (rejection of claims to compound structurally similar to the prior art compound was reversed because claimed compound unexpectedly possessed anti-inflammatory properties not possessed by the prior art compound); Ex parte Thumm, 132 USPQ 66 (Bd. App. 1961) (Appellant showed that the claimed range of ethylene diamine was effective for the purpose of producing " 'regenerated cellulose consisting substantially entirely of skin' " whereas the prior art warned "this compound has 'practically no effect.' ").*

Applicants will point out that "[t]*he submission of evidence that a new product possesses unexpected properties does not necessarily require a conclusion that the claimed invention is nonobvious. In re Payne, 606 F.2d 303, 203 USPQ 245 (CCPA 1979). See the discussion of latent properties and additional advantages in MPEP § 2145*", the unexpected properties were <u>unknown and non-inherent functions</u> in view of Farrington, since Farrington does not inherently achieve the same results. In other words, these advantages would not flow naturally from following the teachings of Farrington, since Farrington fails to suggest using <u>search keys</u> to trigger a chain reaction, as does the present invention.

Applicants further contend that the mere fact that one of skill in the art could rearrange Farrington to meet the terms of the claims is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for one skilled in the art to provide the <u>unexpected properties</u>, such as a information displayed in a matrix form as shown in Fig. 4 such that the absence of records based on a particular search key during search can be easily seen, without the benefit of appellant's specification, to make the necessary changes in the reference device. *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984). MPEP§2144.04 VI C.

Applicants contend that the prior art fails to teach or support each and every feature of the present invention as recited in independent claims 3 and 7. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the

Office Action. The withdrawal of the outstanding prior art rejections is in order, and is thus respectfully solicited.
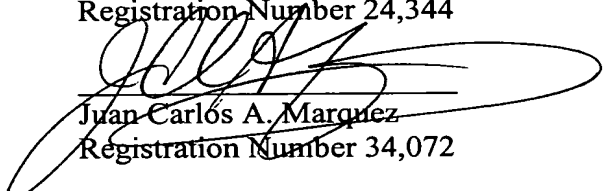
Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention as now claimed and the prior art reference upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

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